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A COMPARISON STUDY OF OVERACTIVE BLADDER (OAB) SCREENING TOOLS VALIDATED IN SPANISH (B-SAQ, OAB-V8 AND OAB-V3) TO ADDRESS THE DIAGNOSIS OF OAB IN CLINICAL PRACTICE IN MADRID (SPAIN).

Hypothesis / aims of study

Overactive bladder (OAB) syndrome is a common entity that has a detrimental effect on QoL and sufferers are often reluctant to seek help. Screening OAB will identify patients with bothersome symptoms who may benefit from treatment and allow patients to self-assess their symptoms. The aim of this study was to compare in clinical practice the value of three self-assessed questionnaires validated in Spanish: Bladder Control Self Assessment Questionnaire (B-SAQ) (1) also known as CACV, Overactive Bladder Awareness Tool (OAB-V8) and its abbreviated version (OAB-V3) (2) in routine clinical practice in a population in Madrid (Spain). Determining the diagnostic performance of these instruments could facilitate diagnosis and management of OAB in primary care and more accurate patient referral to specialists (3).

Study design, materials and methods

Observational non-interventional cross-sectional study on clinically investigated subjects over 30 years of age, some with suspected OAB and a similarly balanced control population. Presence or absence of coping strategies and also bothering defining OAB were investigated (Coyne's criteria). Diagnosis was made after detailed clinical history, physical examination including genital exploration in females and rectal exam in males, urinalysis and bladder and renal sonogram and 3-days bladder diary. Urodynamic study and cystoscopy were performed only when clinically considered necessary. Differential diagnosis was established in cases affected by symptoms not due to OAB. Kappa coefficient between definite diagnosis and self-assessed questionnaires (OAB-V3, OAB-V8 and B-SAQ) was investigated (accordance was poor when $k < 0.4$, moderate if $0.4-0.6$, good if > 0.6 and excellent if > 0.8). Hazard ratio (HR) and 95% C.I. was estimated for each diagnostic tool to predict correct clinical diagnosis. ROC curve analysis and comparison of area under the curves was also performed.

Results

411 subjects over 30 years of age, 177 (43.1%) males and 234 (56.9%) females, were investigated. Among them, 207 (50.4%) were diagnosed of OAB, 74 (35.7%) males and 133 (64.3%) females. Conversely 204 (49.6%) were controls, 103 (50.5%) males and 101 (49.5%) females, either without any specific diagnosis or with LUTS other than OAB. Clinical differential diagnosis was established in 63 cases: 15 (3.65%) stress urinary incontinence, 13 (3.2%) benign prostate hyperplasia, 11 (2.7%) prolapse, 8 (1.95%) urine infection, 5 (1.2%) stroke, 4 (0.9%) Parkinson and other neurological disease, 3 (0.7%) diabetes mellitus, 3 (0.7%) chronic cystitis, and 1 (0.2%) stone disease. Bladder diary was considered diagnostic of OAB, based on micturition frequency and PPIUS scale, in 197 (47.9%) patients, 76 (38.6%) males and 121 (61.4%) females. Kappa coefficient between clinical diagnosis and B-SAQ, OAB-V8 and OAB-V3 was 0.59, 0.67 and 0.73, respectively. HR to predict diagnosis was 15.4 (9.5-25.1) for B-SAQ, 31.0 (17.6-54.6) OAB-V8 and 124.4 (48.5-319.4) OAB-V3. Area under the curve was 0.80 for B-SAQ, 0.84 OAB-V8 and 0.87 OAB-V3 (contrast OAB-V3 and OAB-V8, $p = .02$; contrast OAB-V3 and B-SAQ, $p < .0001$) (Figure 1A). Kappa coefficient between clinical diagnosis and diagnosis based on bladder diary was 0.70 and HR for bladder diary to predict diagnosis was 32.6 (18.8-56.7). Area under curve for bladder diary was 0.85 (contrast OAB-V3 and bladder diary, $p = .47$) (Figure 1B). OAB-V3 > 3 plus coping strategies and bothering predicted clinical diagnoses optimally, with HR 134.3 (64.2-280.9) and area under curve 0.92 (contrast OAB-V3 and OAB-V3 plus bother and coping strategy, $p = .0002$) (Figure 1C).

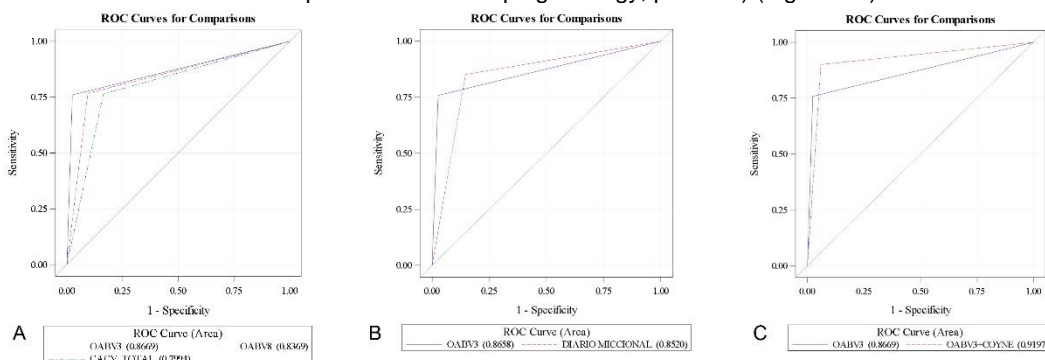


Figure 1. Comparison between ROC curves: (A) B-SAQ, OAB-V8 & OAB-V3; (B) OAB-V3 and bladder diary; (C) OAB-V3 and OAB-V3 corrected by Coyne's criteria.

Interpretation of results

The study confirms the diagnostic performance and clinical utility of the three self-assessed questionnaires investigated (B-SAQ, OAB-V8 and OAB-V3) to screen patients with OAB. Among them, OAB-V3 performed better in detecting symptoms of OAB. OAB-V3 also performed equivalent to 3-days bladder diary in the detection of OAB in this study. The simplicity on OAB-V3 favors widespread use in primary care. Investigating presence or absence of coping strategies and also if the symptoms bother the patient increases sensitivity in the diagnosis of OAB almost without any loss in specificity, thus increasing accuracy of the test. Therefore, determining the presence of coping strategies and bothering defining OAB can be easily investigated by primary care physicians and improves diagnostic performance of the abbreviated version Overactive Bladder Awareness Tool (OAB-V3). Mimickers of OAB in our environment are stress urinary incontinence with or without prolapse in females and benign prostate hyperplasia in males, urine infection, neurologic disease and sequelae, diabetes mellitus, chronic inflammation of the bladder and urinary stone.

Concluding message

OAB-V3 is a simple questionnaire with excellent performance if used for screening of OAB in a closed population in Madrid. Simplicity of OAB-V3 favors its use by general practitioners. Bladder diary accuracy to diagnose OAB itself without clinical history is not superior in our environment. Evaluation of bothering and coping strategies by physician at the time of completing the questionnaire increases the accuracy of OAB-V3.

References

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Disclosures

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